DOCUMENT RESUME

ED 333 566 EA 023 074

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TITLE Changing the Schools: A Word to School Leaders about Enhancing Student Investment in Learning.
PUB DATE Apr 91
NOTE 18p.; Paper presented at the Annual Meeting of the American Educational Research Association (Chicago, IL, April 3-7, 1991).
PUB TYPE Speeches/Conference Papers (150) -- Guides - Non-Classroom Use (055)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Academic Achievement; Administrator Role; Discipline; *Educational Environment; Elementary Secondary Education; Grouping (Instructional Purposes); Instructional Leadership; Leadership Responsibility; Learning Activities; Learning Motivation; Recognition (Achievement); Scheduling; Student Evaluation; *Student Motivation; Teaching Methods

ABSTRACT

After defining the school learning environment as a collage of various goal stresses and discussing relationships between motivation and achievement explored in recent research, this document explains the need to change school culture and climate in order to enhance student motivation. Policy and procedural areas where change may be desired are discussed: (1) instructional activities; (2) authority; (3) recognition of students; (4) instructional grouping; (5) student evaluation; (6) scheduling. In addition, a table outlines the focus, goals, and strategies for change in each area. Last, the importance of school leaders' roles in educational change is reviewed. (52 references) (CLA)

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D R A F T - 3/20/91

CHANGING THE SCHOOLS:
A WORD TO SCHOOL LEADERS ABOUT ENHANCING STUDENT INVESTMENT IN LEARNING*

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Paper presented at the American Educational Research Association Annual Conference ("Motivation, New Directions in School-Based Research") Chicago, Illinois, April, 1991.

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EA023074

* This paper is based on research conducted with support from the U.S. Department of Education (RT15A00430) and the National Center for School Leadership (OERA Grant No,. R117C8003). The author is not only indebted to his collaborator, Carol Midgley, but also to school and university faculty and staff too numerous to mention.

CHANGING THE SCHOOLS:
A WORD TO SCHOOL LEADERS ABOUT ENHANCING STUDENT INVESTMENT IN LEARNING

The past several years have seen an impressive increase in concern with motivational issues. The interest has eventuated not only in theoretical discussions, but in programs of research. Special issues of standard educational and psychological journals, the publication of various books (e.g., Nicholls, 1989; Stipek, 1988; Covington, forthcoming), the establishment of research annuals (Ames & Ames, 1984; Maehr, 1984) and this symposium provide ample testimony to this state of affairs. Something has indeed been learned about motivational processes which is not only interesting and intriguing but actually useful. Indeed, I would suggest that we are now at a point where it can and will be productive to return to a goal of a generation or so ago: the development of programs designed to enhance student motivation. At best, earlier attempts (e.g., Alschuler, 1973; Alschuler, Tabor, & McIntyre, 1971; deCharms, 1976; Kolb, 1965) were moderately successful; new attempts may not achieve their objectives either, but the drastically increased body of information emboldens several here and there to try. Indeed, one can readily identify the seeds of program development in the work of members of this symposium as well as elsewhere (e.g., Ames, 1987, 1990).

This paper, indeed this symposium, is a sample of this spirit of the times. This paper takes, as its special role, to speak to those in leadership roles about enhancing the personal investment of students in learning. To spell this out in more concrete terms, I propose to suggest that schools can and should be restructured so as to enhance the motivation and learning of students. The word "can" in this proposal is in fact a hypothesis. The word "should" follows if the hypothesis is plausible -- and if we are serious about values that we as educationists repeatedly avow. By employing the term "restructured" we are indeed reflecting the current and pervasive concern, hope and possibly a deep underlying need for educational improvement. But we are also telegraphing our interest in speaking to those in leadership roles. Certainly, much of the work on motivation and achievement can be, and is, useful to teachers and parents (e.g., Blumenfeld, Mergendoller & Swarthout, 1987). Few have considered seriously the role of motivation vis-a-vis the current restructuring movement (Murphy, 1991) and few have considered that the school as an entity in its own right, may have effects that supersede those of individual classrooms and the acts of individual teachers. And so it is that we wish to make the argument that now is the time to consider school, as well as instructional, curricular, and classroom change. A word to those in school leadership roles is in order.

In attempting to speak to those in leadership roles we wish to take into account another spirit of our times, the school restructuring movement. As is well know, the current phase of school reform seems to revolve in a special way around school restructuring. Therewith, the focus seems to be on broader organizational change and especially on the devolution of authority, initiative and action. As Timar (1989) points out, this new wave of reform is a force to be reckoned with. Major school districts, state legislators and various influential groups are inaugurating and promoting some version of what is called "school restructuring." It is not always clear what the restructuring is supposed to accomplish except that things will be better than they have been in the past. It is drastically less clear how restructuring will accomplish this good state of affairs. It is a proposal of this paper that school restructuring must not be left solely to administrators and sociologists, but should in fact be a special concern of motivational psychologists. There is within current motivation theory a framework which provides purpose, rationale and direction for such school reform and we need to exploit it it.

TOWARD A FRAMEWORK FOR RESTRUCTURING THE LEARNING ENVIRONMENT OF THE SCHOOL[1]

Our goal is a lofty one; hopefully, it is not based on delusions of grandeur. The proof of the worth of our aspirations is based on the answer to several basic questions:

1) How might one conceptualize and describe the school learning environment as it relates to student personal investment?

2) Do variations in the school learning environment as conceptualized and described relate to variations in student motivation and learning?

3) Can one change the school learning environment? If so, how?

The School as a Learning Environment

At the outset, it not only seems intuitively plausible that a given school might have a character or "personality "of its own, there is a growing body of evidence to reinforce that feeling. Early work on educational environments by Stern (1970), among others, certainly provided initial justification for this belief. More recently, the interest in "school culture" has given rise to a plethora of studies, descriptions, and data (e.g., Deal & Peterson, 1990) which indicate that schools differ in their mission. They stress different purposes and goals---and possibly define the meaning of school and the purpose of school activities differently. While this work has extensively described apparent variation in expressed norms and values, it has not necessarily provided a close link between these "cultural" or climate characteristics and student motivation and investment in learning. In particular, it has not conceptualized the school environment in a way that would allow one to observe systematically how action taken by leadership might eventuate in change, particularly changes that could enhance student motivation and achievement. R&D activities of this nature have been undertaken, however.

First, in a series of studies, Braskamp & Maehr (1985; Maehr & Braskamp, 1986; Krug, 1989) attempted to operationalize the concept of "organizational culture" and later "school culture" in a form that allowed for ready assessment using standard questionnaire techniques and psychometric analyses. This work built heavily on "goal theory" (Ames & Ames, 1984; Covington & Omelich, 1984; Maehr & Pintrich, in press; Pervin, 1990) and is, generally speaking, conceptually parallel to the work of Carole Ames (1990). School culture was defined as perceived goal stresses or perceived emphasis on "personal incentives" stressed in the school environment with the implicit hypothesis being that environmental goal stresses would be associated with student adoption of learning goals and motivational patterns. Recent research has suggested that students perceive classrooms as defining the purpose and goals in differing ways and that these perceptions influence the goals which students adopt in the classroom, thereby influencing their motivation and learning (Ames & Archer, 1988; Meece, Blumenfeld, & Hoyle, 1988; Nicholls, Cobb, Wood, Yackel, & Patashnick, 1990; Pintrich & Garcia, in press; Powell, 1990). Simply put, students can and do perceive classrooms as emphasizing "task" or "performance"[2] goals and this perception is associated with the quality of personal investment they exhibit.

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[1]Portions of this section have been adapted from Maehr and Midgley (In Press).

[2]Recent motivation research converges on the importance of these goals in influencing the quality of student investment in learning (cf. Dweck, 1985). However, different labels are used in defining what are arguably essentially the same basic goal categories. Thus, what we we refer to as Task is referred to elsewhere as Mastery (Ames & Archer, 1988), Learning (Dweck & Leggett, 1988) or Accomplishment

The first efforts considered an array of possible goals, including especially two which were similar to task and performance goals defined at the classroom level. We quickly recognized that these two goals were not sufficient to describe the multiplicity of stresses in the school culture. However, they did appear to encompass significant aspects of the school as a learning environment. What is important about these initial efforts is that evidence was found that perceptions of organizations as psychological entities appeared to have a degree of conceptual coherence. Organizations in the aggregate likely vary (Krug, 1989; Maehr, 1987; Maehr & Braskamp, 1986) in these perceptions, suggesting that schools indeed may be characterized by different goal stresses. Not of incidental importance was the finding that goal dimensions, not unlike those considered at the individual and classroom levels, appeared to be recognized at the organizational level. Finally, the initial approaches to measurement (Krug, 1989) held out the promise of quantitative analyses of what has been increasingly termed the "psychological environment" of the school (Maehr, in press).

In summary, it seems that just as one can define the environment of the classroom in goal theory terms, so can the school be defined. Similar goal dimensions seem to exist for these two different "psychological environments." And just possibly, the psychological environment of the school is different than the sum of its classroom counterparts.

School Learning Environment and Student Motivation

The identification of dimensions of the school as a learning environment was a first step. A necessary and also critical next step was the determination of whether these dimensions relate to anything that might be viewed as student motivation and achievement. In this regard, Fyans and Maehr (1989; Maehr, in press) conducted a comprehensive analysis of the relationship between students' perceptions of schools, and their motivation and achievement in approximately 880 schools in Illinois. The perceptions of schools were obtained using an early experimental version of a measure designed to assess perceived goal stresses. We assessed motivation through a questionnaire which incorporates an array of items commonly used in the assessment of various dimensions of motivation, including for example, attributions (Weiner, 1980; 1986), "continuing motivation," (Maehr, 1976), and evaluation anxiety (Hill, 1980; 1984). Achievement across four content areas (Math, English, Natural Science, and Social Studies) was assessed through the results of standardized achievement tests.

A series of path analyses were conducted to determine the conceptual viability of a causal model which proposed that goal stresses in the school were related to motivation and subsequently to achievement. In brief, support for this model was obtained and confidence was increased that the "psychological environment " of the school was not just an interesting curiosity, but perhaps a variable that is importantly associated with student motivation and achievement. Thus the possibility emerged that the psychological environment of the school might be a viable target in effecting changes in student motivation.

Changing the School Environment

For researchers as well as for practitioners, it is important to determine whether one can change this environment in such a way that motivation and achievement are positively influenced. Thus, an attempt to intervene and change the school "psychological environment" is a desirable next step in the process. That step is indeed a big step. It involves, first of all, identifying facets of the school environment that are amenable to change. Just as Ames and her colleagues (Ames, 1990; Powell, Ames & Maehr, 1990; Tracey, Ames, & Maehr, 1990) identified classroom management

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(Maehr, In Press). What we term Performance is elsewhere labeled Ego-oriented (Nicholls, 1989) or Power (Maehr, In Press).

strategies that influence the "psychological environment" of the classroom, so is it desirable to identify procedures, policies and practices that have comparable school wide effects. Once these are identified, one has to consider processes for change. This two-fold task defines our current efforts. A progress report follows.

Preliminary work on school culture and climate (Baden & Maehr, 1986; Maehr, in press) as well as the large literature on school effectiveness (e.g., Good and Weinstein, 1986) strongly suggested that school policies, practices, and procedures define what the school is about, what students are to do, and how the activities of students are to be organized and managed. Through inaugurating, promoting, or subverting policies, school leaders are likely to have effects that are roughly comparable to those seen at the classroom level. Decisions, practices and actions which have school-wide effects are likely to symbolize the purpose and meaning of time spent in a particular school. Table 1 presents an outline of how school level policy possibly relates to the determination of a school-wide psychological environment. Note that this outline is also structured within the TARGET paradigm used by Ames at the classroom level primarily for reasons of convenience. In fact, the TARGET defined options may prove to be too limiting and can at best only represent a starting point for policy considerations. While Table 1 suggests key policy and procedural areas to be considered in effecting the school environment change we envision, some elaboration is desirable.

Table 1 here

Task. Certainly, schools have some degree of influence over what children do in school settings. Curriculum committees translate state and local mandates into expectations and guidelines. Whether learning is to be challenging and meaningful or simply "work" can be expressed in a number of different ways at the school level. Resources can be invested in activities that challenge students such as developing projects for educational fairs, or these can be considered "frills." Schools and school policy can stress strict adherence to textbooks or encourage "hands on experience" by providing resources and establishing procedures/policies that encourage field trips, and allow the necessary flexibility of scheduling. Schools can express concern about animals in classrooms and thereby inhibit teachers in the establishment of contextualized learning designed to elicit student engagement. School janitorial policy can inhibit project-based science teaching which engages students in (sometimes messy) science experiments. Teachers can be given (and expected to use) "teacher proof" materials, such as certain texts, worksheets and pre-planned exercises--- or be given the freedom to design and use tasks that are action-oriented, that flow from the interests of the students, and that are challenging and creative (cf. Meece, in press).

Blumenfeld and her colleagues (e.g., Blumenfeld, Mergendoller, & Swarthout, 1987) repeatedly suggest that it is important that we regularly ask "what are students asked to do in school?" The point is that teachers, alone, do not decide what students do in the classroom. These decisions are also made in direct and subtle ways at the school level when curricular issues are discussed, excellent teacher awards presented, news reports filed, textbooks chosen, and resources allocated. School leaders can become obsessed with providing "teacher proof" materials or can raise issues about the nature of tasks - are they meaningful, challenging, interesting, important? They can worry more about keeping janitors happy than about making school tasks and student learning relevant to student experience.

Authority. From our preliminary work, we strongly suspect that the issue of authority may well be as important at the school level as at the classroom level. Schools, through school-wide rules and guidelines, can focus on controlling behavior by putting limitations on students or

Table 1: Toward the Development of a School-Wide Mastery Orientation: General Framework to be Employed in Development of Tactics

TARGET Area	Focus	Goals	Strategies
Task	Intrinsic value of learning	Reduce the reliance on extrinsic incentives	Encourage programs that take advantage of students' backgrounds and experience
		Design programs that challenge all students	Avoid payment (monetary or other) for attendance, grades, or achievement
		Stress goals and purposes in learning	Foster programs which stress goal setting and self-regulation/management
		Stress the fun of learning	Foster programs which make use of school learning in a variety of non-school settings (internships, field experiences, co-curricular activities)
Authority	Student participation in learning/school decisions	Provide opportunities to develop responsibility, independence, and leadership skills	Give optimal choice in instructional settings
		Develop skills in self-regulation	Foster participation in co-curricular, and extra-curricular settings
			Foster opportunities to learn metacognitive strategies for self-regulation

Table 1 (continued)

TARGET Area	Focus	Goals	Strategies
Recognition	The nature and use of recognition and reward in the school setting	Provide opportunities for all students to be recognized	Foster "personal best" awards
			Foster policy in which all students and their achievements can be recognized
		Recognize progress in goal attainment	
		Recognize efforts in a broad array of learning activities	Recognize and publicize a wide range of school-related activities of students
Grouping	Student interaction, social skills, and values	Build an environment of acceptance and appreciation of all students	Provide opportunities for group learning, problem solving, and decision-making
		Broaden range of social interaction, particularly of at-risk students	Allow time and opportunity for peer interaction to occur
		Enhance social skill development	Foster the development of subgroups (teams, schools within schools, etc.) within which significant interaction can occur
		Encourage humane values	Encourage multiple group membership to increase range of peer interaction

Table 1 (continued)

TARGET Area	Focus	Goals	Strategies
Evaluation	The nature and use of evaluation and assessment procedures	Increase students' sense of competence and self-efficacy Increase students' awareness of progress in developing skills and understanding Increase students' appreciation of their unique set of talents Increase students' acceptance of failure as a natural part of learning and life	Reduce emphasis on social comparisons of achievement by minimizing public reference to normative evaluation standards (e.g., grades, test scores) Establish policies and procedures which give students opportunities to improve their performance (e.g., study skills, classes) Create opportunities for students to assess progress toward goals they have set
Time	The management of time to carry out plans and reach goals	Improve rate of work completion Improve skills in planning and organization Improve self-management ability Allow the learning task and student needs to dictate scheduling	Provide experience in personal goal setting and in monitoring progress in carrying out plans for goal achievement Foster opportunities to develop time management skills Allow students to progress at their own rate whenever possible Encourage flexibility in the scheduling of learning experiences

can develop ways to give students more responsibility. Providing a safe and orderly environment for learning can drift into becoming mere control of students without concern for the development of self-regulation and independence of judgment. Long ago, John Dewey emphasized that the classroom can be an important precursor for participation in a democratic society. That is doubtless correct, but to that we add that participation by students leads to views of the nature of the school's mission, its relevance to their lives, and the intrinsic worth of learning (cf. Nicholls, 1989). One can make a point of finding opportunities for students to participate in school governance. Discipline procedures can reflect sheer force or attempts to develop critical thinking about the implications of one's behavior. Schools can engage students in values clarification or lay a point of view on them. In sum, policies can be viewed in terms of how they seek to transfer increasing authority and responsibility to students.

Recognition. It was in this domain that we first became especially aware of the particular influence of the school. As we worked with classroom teachers to provide recognition on the basis of progress, improvement, and effort, teachers pointed out to us that recognition at the school level was often based on relative ability (school honor rolls, for example). In one school the teachers were developing and employing classroom strategies that minimized social competition and extrinsic rewards for output, and that stressed progress in accomplishing individualized student goals. As this effort was being undertaken, the principal announced that the school would participate in the Pizza Hut program. This well-meaning effort rewards students --- for pizza, no less --- for the number of books they read. Students compete with each other, recognition is on the basis of relative ability, and the difficulty or challenge inherent in the task is ignored. Teachers tell us that some students don't even try, some cheat, and most read the easiest, shortest books they can find. Recognition consists of at least two parts. One part is what is recognized. The other part, of course, is who is recognized. When one recognizes academic achievement in a socially competitive fashion, there are some who will seldom if ever be recognized. Research at the classroom level has repeatedly called attention to the problems created by such a unidimensional, indeed misplaced, attention to recognition and reward.

Grouping. Students and parents are given explicit messages about the meaning and purpose of learning through the grouping practices that are endorsed and used in the school. Ability grouping and tracking are often decisions made at the school level. Textbook selection, often undertaken at the school or district level, can also influence the nature of grouping. Whether or not teachers undertake cooperative learning can depend on the stand taken by school leaders and the resources provided to train and to provide support.

In discussing grouping one must also call attention to the fact that as students are grouped, different resources are assigned. Consider a specific example in this regard. We have often observed that computer usage is not broadly distributed across students. Who gets to use the computers and for what may effectively state what the school thinks about who can achieve and what that achievement is worth. Similarly, project-based science may be reserved for those in the "advanced" groups. Again, there is a message here. All children can presumably profit from seeing the relevance of science and technology in their daily lives. Opportunities to use science in the course of learning science should not be the province of an elite few---if learning, not just competitive performance, is the preeminent goal of the school.

Evaluation. Teachers are often not free to evaluate students in accord with their own preferences or goals. School policies may dictate the nature of evaluation and thereby affect the psychological environment. Within achievement theory, of course, there is a long history of interest in this question (e.g., Covington & Omelich, 1987). There also seems to be broad awareness that school-wide evaluation practices may affect the nature and quality of student motivation and learning. From time to time, school policies on grading have come under review. While the arguments for and against various grading systems are seldom based on motivation theory, there is at least some recognition that how the school chooses to evaluate student

performance is crucial. There is currently a widespread interest in the role of assessment in determining the nature of the learning environment. Most teachers have little or nothing to say about the nature of standardized achievement tests or state-wide testing programs and how the results will be interpreted and used. There are few areas of school activities that have a greater potential for defining or redefining the meaning and purpose of school for students than that of evaluation.

Time is the final component of the TARGET acronym, one about which we probably know the least. However, our preliminary work indicates that it should probably not be ignored in dealing with environmental change. An example may help to make the point. There are few things that are so inflexibly managed in the schools as schedules. Science teachers who wish to engage students in challenging projects quickly learn that the 40 or 50 minute hour may interrupt activities at the point of real insight. Much of the period may be spent gathering together, and cleaning up, materials. Any teacher wishing to move instruction beyond school walls to a museum or to a garden on the edge of the school grounds will be bound by scheduling policies to some significant degree. Such scheduling of time likely affects the nature of tasks that are presented to students. In most secondary schools and in many elementary schools the division of the day into "periods" is mandated at the school level. In addition, elementary school teachers may be required to provide a certain number of minutes of math instruction per day. Perhaps the teacher would prefer to devote a whole day to math, or to integrate math and science instruction, or to capitalize on some current event or phenomenon that is in the news, but is restricted by school wide mandates. The 40-50 minute hour is well designed to conform to the teacher lecture and to preprogrammed group activities. It is not particularly well-suited to a project approach to learning, to instructional approaches that minimize teacher talk in favor of student participation, or to an interdisciplinary curriculum.

We have used the TARGET domains, as Carole Ames has done, to illustrate how the purpose of learning can be conveyed to students through a broad range of school decisions. Not all school policies or management strategies fit neatly into one of these categories, of course. The easily remembered acronym, at best, serves to suggest a variety of areas in which both classroom and school-wide policy and procedures are operative. What we are proposing, however, is that changes in school policy embraced by these domains can influence the "psychological environment" (Maehr, in press) of the school. Specifically, the psychological environment can be designed such that intrinsic reasons for school learning become more salient.

TOWARD A PROGRAM OF SCHOOL-WIDE CHANGE

On a theoretical basis, school-wide policies and procedures likely convey the purpose and meaning of schooling. They probably not only define the nature and worth of learning but also the worth of the learners. Current theory (Maehr, 1984) suggests further that such meanings are associated with student personal investment in learning. In specifying how school wide action and policy lead to stresses within the the school "psychological environment," we have focused our attention on the role of school leaders. Their job may be more than just selecting good teachers and encouraging them in their efforts. It may be more than just establishing a fitting work environment. It may be more than just enabling or empowering school staff. Quite possibly the leadership of the school has an important role to play in setting conditions which significantly and crucially affect the motivation and personal investment of students in learning. School-wide policies and practices are by no means irrelevant to student motivation and achievement and that is a first and important message that must be addressed to principals, superintendents, and school leadership teams.

While an important message, one that makes it clear that more than management is expected of those who fill leadership roles it cannot be the last word. Clearly, it would be

student investment in learning. We are not at that point yet, but we are deeply engaged in an effort to this end (Maehr & Midgley, in press).

CONCLUSION

It has been most common to think of applying our motivational research findings to individual students or to classrooms. McClelland's (1961; 1985) work, for example, eventuated in programs designed to change the motivational patterns of individuals (McClelland, 1973a; 1973b). DeCharm's (1976) landmark study focused on classrooms and, almost accidentally, on the teacher. Most motivational researchers find practical application for their research in the tidbits of wisdom shared with teachers and (sometimes) parents in text, lectures, and popular articles. Seldom, if ever, do we speak directly and at length to those who have special responsibilities for and authority to rethink and restructure the fuller context of student learning. We do not speak to those who develop, guide, and set school policy, practice and procedures. Thus, I personally have not read an article by any motivational researcher that speaks to policy-makers, principals, and school leadership teams about changing the school environment to enhance student motivation and achievement. It is time that this oversight be corrected! For the time is right for restructuring, and that restructuring will indeed take place. The question is will it take place in such a way that motivation and the investment in learning of students will be enhanced. The answer to that question lies significantly with those in the motivational research community. The concluding exhortation of this paper is that we must raise our sights to look at the school as an entity, as an environment that can affect student motivation and learning. We suggest further, that there is beginning evidence to indicate that such a focus will have merit and will prove useful.

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